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ABSTRACT

The Juniper Gardens Cooperative Preschool is a Head Start project staffed by the mothers of 30 4- and 5-year-olds who attend the preschool. This paper reports on two studies that attempted to upgrade practices in two teaching skills; classroom management and individual tutoring. The classroom was divided into five activity areas which the children could use freely. However, children switched areas so frequently that there wasn't enough time to offer instruction in any one area. Furthermore, when an academic activity (anagrams) was initiated in one of the areas, the children tended to avoid it. To solve these problems, a rule change was made. Children had to complete a task (similar to the anagram activity) before they could switch areas. Observations showed that, as a result, children switched areas less often and played the anagram game more often. The mothers were deficient in individual tutoring because they too often made negative or irrelevant comments and too seldom made reinforcing or helping comments. Written instructions did little to rectify this situation, but "tele-coaching" over earphones quickly increased the mothers' use of sound learning principles and decreased their use of undesirable tutoring behavior. (MH)

The Simultaneous Rehabilitation of Mothers and Their Children[1]

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The Juniper Gardens Cooperative Preschool operates in the community center of a public housing project in Kansas City, Kansas. The classroom is much like other Head Start classrooms, except it is staffed by the mothers of the children who attend. Most of these teachers, barred from other forms of employment by deficits of education or experience, subsist on some form of relief.

The class was in session from 8:30 to 11:30 a.m. four days each week and was conducted by a group of ten mothers who alternated every three weeks with other groups of mothers. The classroom is a gymnasium which was partitioned into five activity areas with movable dividers which were set out and taken up each day so that the room could be used for other community activities in the afternoons. The enrollment consisted of 30 four and five year old children at the beginning of the past year, and stood at 21 by the end of the year.

The long range goal of the Co-op is to provide indigenous parents with the skills that will enable them to effectively operate their own poverty programs dealing with preschool education. The assumption is that if Head Start type programs can be operated by the parents of the children served, such programs will have a more noticeable impact upon the community at large.

The teaching skills sought have been broken into two categories for

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training purposes, but there has been a similar emphasis in each upon the importance of positive social reinforcement in work with young children. The first category, classroom management, has to do with the routine business of operating a classroom. Schedules must be devised, interest areas established and staffed, group activities need to be planned and supervised, and transitions must be accomplished from one activity to the next throughout each day.

The second category, "tutoring," deals with the development of those specific skills which will enable a mother to instruct one child at a time. To do this effectively she must be able to sequentially program appropriate learning tasks, and she must immediately reinforce the child's successive approximations toward the instructional objective. In both categories the emphasis on positive reinforcement contrasts with the typically high rates of criticism, nagging, threatening, and physical punishment, which these parents frequently employ. The tendency to rely on such negative practices in both group and individual situations is assumed to reflect a lack of skill in more positive procedures rather than a greater predisposition toward aggression. Two studies conducted during the past semester illustrate the reason for our confidence in this assumption.

Positive Management. The five interest areas of the classroom were each supervised by one of the mothers, while a second acted as an observer. The children were free to move from one area to another as their preferences varied, and their coming and going was recorded by the observers. The observer, stationed at the entrance to an area, noted the time at which each child entered and left the area during a

one-hour period each day. Because all areas were similarly observed it was possible to reconstruct the travels of every child after each observation period. At the beginning of the year the five areas had consisted of: blocks, "creative," house, manipulative, and climbing. During the baseline observation of the children's switching behavior, an academic task was initiated in one of the areas which had previously contained climbing apparatus. The task required the children to execute various manipulations of anagram-type letters: matching, pairing upper- and lower-case letters, arranging alphabetically, and combining to match sample words. The task was varied according to the skill of the child.

During the five days of this phase, it was observed that the children switched from one area to another on the average of once every 23 minutes. To put it another way, 73% of the children averaged two or more (up to eleven) switches per hour. On the first day the letters were introduced, and 80% of the children entered the letter area. The proportion dropped during the five-day period, however, and the average per cent of the children who had daily contact with the lesson was 46% for the entire phase.

On the sixth day the classroom procedures were altered. First it was thought desirable to reduce the rate at which the children moved from one area to another since frequently their tenure in any one activity was too short to allow for much instruction. Second, a way was sought to increase the proportion of children who might have daily contact with the letter task so that more pre-academic training could be provided. In both cases, the objective was to bring about the desired changes without resorting to commands, implied threats, or coercive practices of any type.

To this end, a "switching task" was instituted.

At the beginning of the hour the children were allowed to select a ticket to enter one of the five areas. They were free to choose any area and, once entered, they could stay as long as they wished. In order to move from the first area to another, however, the rule was established that they would turn in their first ticket and then complete a small task at the "switching table" to earn a ticket for the next area they wanted to enter. The switching table contained the same materials as were found in the previously mentioned letter area and the assignments were the same. The children could switch from one area to another (including the letter area, which was still available) as often as they wished during each hour, but each switch required that a new ticket be earned by completing a brief assignment with the letters.

During the five days of the second phase, two things occurred which are shown in figure 1. The switching rate dropped. For the interval during which the switching task was employed an average of 17% of the children switched two or more times per hour. At the same time, 82% of the children, on the average, had daily contact with the academic activity--an increase of 36% over the average of the first phase.

During the subsequent seven days of the analysis the switching requirement was eliminated with the result that a) switching increased--an average of 65% of the children changed areas two or more times per hour; and b) contact with the academic lesson dropped. An average of 24% of the children entered the letter area during this period--a drop of 58% from the average of the previous period.

Thus, with no coercion, by taking advantage of the hi-rate switching

and making it contingent upon the low-rate of contact with the letter task, the parent teachers executed a procedure which achieved the two management objectives. They increased the proportion of the children who had daily contact with the academic activity, and they slowed the previously rapid rate of switching so that there were increased instructional opportunities in all of the areas.

Tutoring. In addition to classroom management skills, the Co-op seeks to provide each mother with the skills necessary for instructing a single child in a tutorial situation. By direct observation, and comparison with professional "master teachers," it was found that the mothers of the children exhibited high rates of inappropriate tutoring behavior and very low rates of appropriate tutoring behavior. In such a situation, inappropriate behavior included: saying "NO" in response to a child's statement, failing to praise the child when his response was correct or approximately correct, and introducing verbal statements which were not related to the subject at hand. This class of irrelevant statements included such phrases as: "Come on, you know that." "Sit up now, and pay attention." "I told you that." and "Think." Such statements, as a group, were called NAGS.

Appropriate teaching included the immediate delivery of praise contingent on a correct or improved response, and prompting effectively. A prompt was defined as a statement given by the mother which consisted of a portion of the appropriate response expected from the child, given so as to increase the probability of a correct response. Obviously, effective prompting would also increase the probability that contingent social reinforcement could also be given.

The tutoring sessions were conducted in an adjoining room with the mother and child facing one another across a small low table. A standard lesson was used in all training sessions which consisted of an array of cards with dots on them. The lesson objective was to teach the child to count the dots using the verbal sequence, ONE, TWO, THREE, etc. while simultaneously pointing to them in a left-to-right, top-to-bottom sequence. The dots had a variety of configurations, but the top left to bottom right sequence was always required.

The mothers were first asked to teach a child to count the dots and a tutoring session was then conducted without further instruction or suggestion in order to establish baseline rates of appropriate and inappropriate teaching behavior. Written instructions were next provided which detailed the materials needed, the goal of the lesson, the entry behavior required, and contained several statements about the importance of praising correct responses. Following this the mother observed as a more experienced teacher, or another mother, conducted the lesson.

The next step had the mother "teach" another mother who intentionally made mistakes typical of those a child might make. During this session the mother doing the tutoring wore an earphone connected to a pocket FM radio. By using a wireless microphone set to an open frequency, a coach was able to talk directly to the mother who was learning to tutor without disrupting the dialog between tutor and pupil. This procedure, which we call tele-coaching, enables immediate feedback to the practicing tutor and is also used to help her anticipate appropriate moves as the lesson progresses.

First with another mother, and then with a child, the coach helps

the new tutor practice prompting for and praising of correct answers. Starting this practice with another mother may have taken advantage of the fact that nagging and other negative statements do not occur at a high rate when the "pupil" is another adult. The tutoring procedure has developed over several months in a trial and error fashion. Its development is not complete and its most critical elements have not yet been experimentally isolated, but the following case of Mrs. B will serve to illustrate the effects of the procedure's present form.

Mrs. B was given the written instructions and, after she had read them, she attempted to take her own child through the dot lesson. The transcript of this session revealed that she had made 53 responses, none of which included praise. Sixty per cent of her responses consisted of saying, "No," nagging the child or asking questions. Thirty-eight per cent of her responses consisted of prompts. These observations somewhat weakened the argument favoring written instructions in such a situation for they did not have any detectable effect.

Prior to each of the second and third sessions, the coach again emphasized the importance of praising correct responses and urged that help be given the child before he had the opportunity to make a mistake. Brief practice sessions were held on three occasions when the coach acted as the mother's pupil. As can be seen in figure 2, no's, nags, and questions comprised only 16% of the second session and disappeared altogether in the third session. At the same time, praise, which had been totally absent during the first session, accounted for 29 and 27% of the tutoring responses during the second and third sessions respectively, as prompts increased to 42% and then to 67%.

Coaching was employed during the second session and for most of the third, during which praise was encouraged and possible prompts were suggested. The third session, however, was broken into two parts and no coaching was provided during the second part. In this final portion of the third session the mother made only 9 tutoring responses. Five of them were prompts and four of them consisted of praise. For those 9 tutoring responses Mrs. B received three correct answers (complete verbal sequence with accurate pointing) from the child. During the 53 largely negative tutoring responses of the first session, the child did not make any correct responses.

This work is continuing so that generalization to other lessons and situations can be programmed for Mrs. B. and her colleagues in the Co-op. There are, however, already indications that the behavioral deficits of the children of poverty can be substantially alleviated by providing their mothers with a limited set of teaching and management skills which take advantage of the effects of positive reinforcement.

FOOTNOTES

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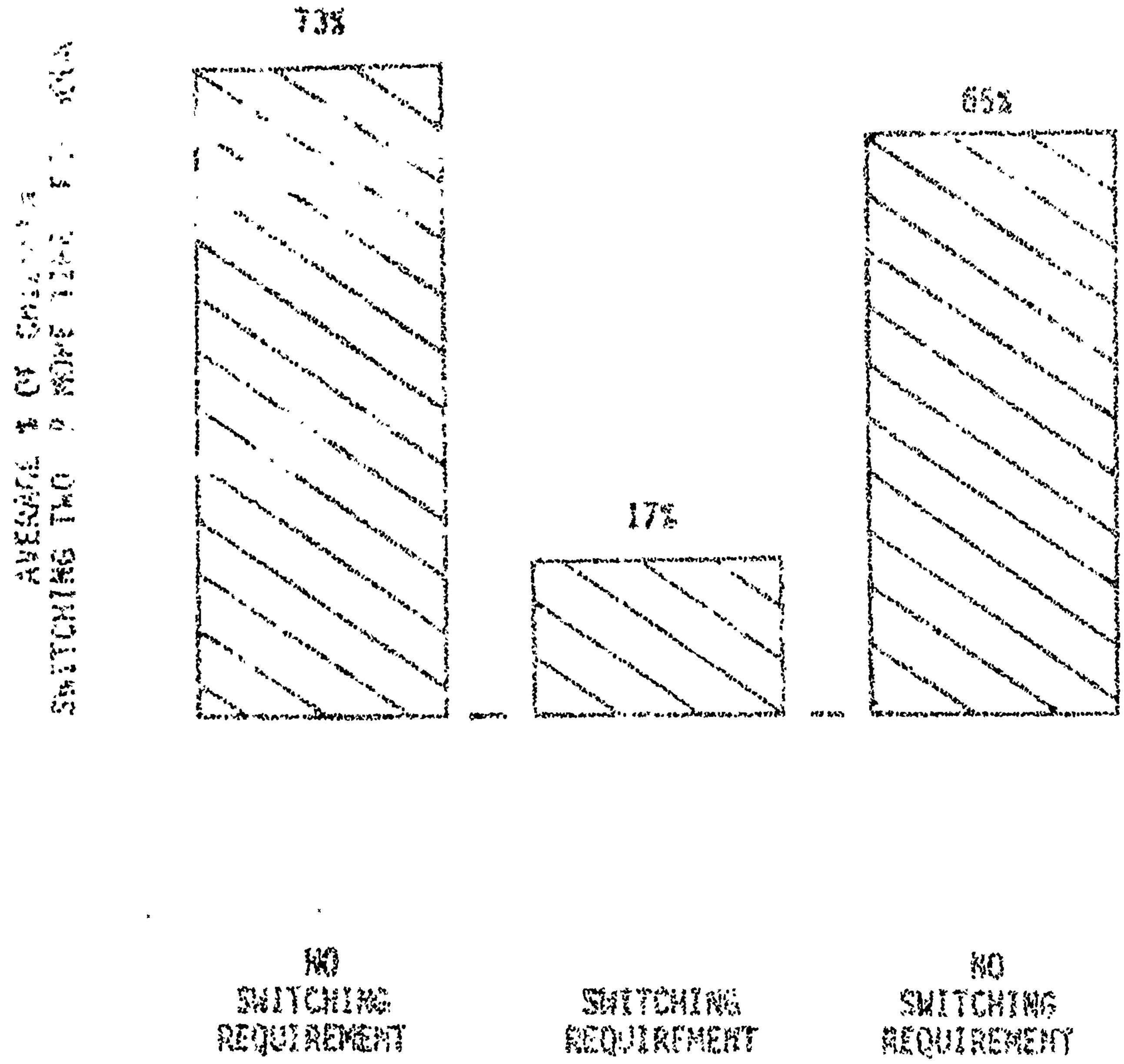
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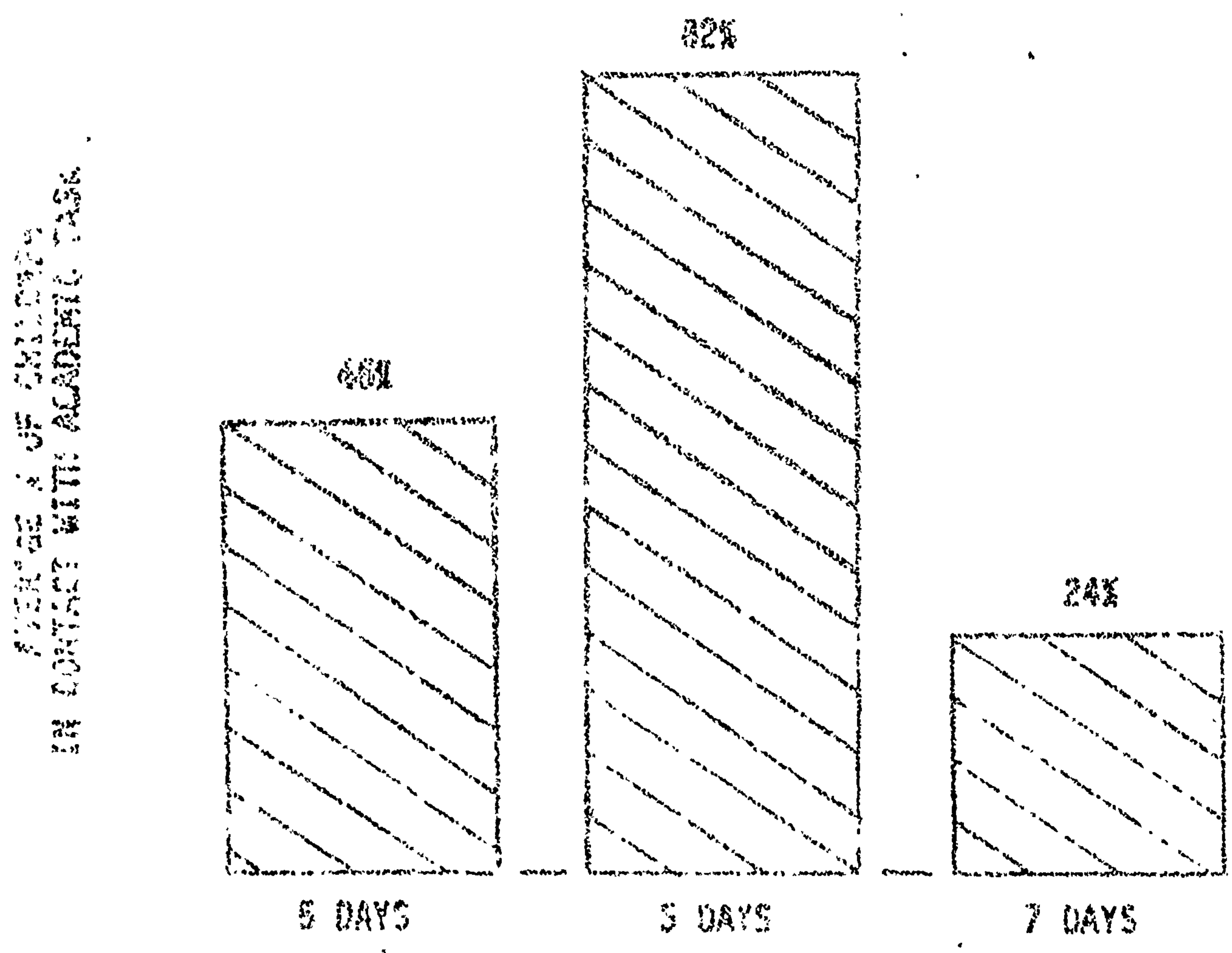
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5 DAYS
7 DAYS

Fig. 2, Bushell and Jacobson, 1968